Manfred Lindau

List of Publications by Year
in descending order

97 papers	4,835 citations	87723 38 h-index	95083 68 g-index
99 all docs	99 docs citations	99 times ranked	4176 citing authors

#	Article	IF	Citations
1	Patch-clamp techniques for time-resolved capacitance measurements in single cells. Pflugers Archiv European Journal of Physiology, 1988, 411, 137-146.	1.3	590
2	High calcium concentrations shift the mode of exocytosis to the kiss-and-run mechanism. Nature Cell Biology, 1999, 1, 40-44.	4.6	386
3	Direct Measurement of Ion Mobility in a Conducting Polymer. Advanced Materials, 2013, 25, 4488-4493.	11.1	267
4	Structure and function of fusion pores in exocytosis and ectoplasmic membrane fusion. Current Opinion in Cell Biology, 1995, 7, 509-517.	2.6	244
5	Dissociation Behavior of Weak Polyelectrolyte Brushes on a Planar Surface. Langmuir, 2009, 25, 4774-4779.	1.6	161
6	The fusion pore. Biochimica Et Biophysica Acta - Molecular Cell Research, 2003, 1641, 167-173.	1.9	142
7	Patterned Biofunctional Poly(acrylic acid) Brushes on Silicon Surfaces. Biomacromolecules, 2007, 8, 3082-3092.	2.6	140
8	Electrochemical imaging of fusion pore openings by electrochemical detector arrays. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 13879-13884.	3.3	134
9	Intracellular Patch Electrochemistry: Regulation of Cytosolic Catecholamines in Chromaffin Cells. Journal of Neuroscience, 2003, 23, 5835-5845.	1.7	126
10	Secretory Vesicles Membrane Area Is Regulated in Tandem with Quantal Size in Chromaffin Cells. Journal of Neuroscience, 2003, 23, 7917-7921.	1.7	107
11	Techniques and concepts in exocytosis: focus on mast cells. BBA - Biomembranes, 1991, 1071, 429-471.	7.9	102
12	The role of the C terminus of the SNARE protein SNAP-25 in fusion pore opening and a model for fusion pore mechanics. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 15388-15392.	3.3	101
13	Design of a CMOS Potentiostat Circuit for Electrochemical Detector Arrays. IEEE Transactions on Circuits and Systems I: Regular Papers, 2007, 54, 736-744.	3.5	97
14	F-Actin and Myosin II Accelerate Catecholamine Release from Chromaffin Granules. Journal of Neuroscience, 2009, 29, 863-870.	1.7	97
15	Phosphatidylinositol phosphate kinase type IÂ regulates dynamics of large dense-core vesicle fusion. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 5204-5209.	3.3	96
16	Mechanism of Peptide-induced Mast Cell Degranulation. Journal of General Physiology, 1998, 112, 577-591.	0.9	94
17	Timeâ€"resolved capacitance measurements: monitoring exocytosis in single cells. Quarterly Reviews of Biophysics, 1991, 24, 75-101.	2.4	90
18	Role of the synaptobrevin C terminus in fusion pore formation. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 18463-18468.	3.3	84

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19	Parallel recording of neurotransmitters release from chromaffin cells using a 10Ã—10 CMOS IC potentiostat array with on-chip working electrodes. Biosensors and Bioelectronics, 2013, 41, 736-744.	5.3	83
20	Resolution of Patch Capacitance Recordings and of Fusion Pore Conductances in Small Vesicles. Biophysical Journal, 2000, 78, 2983-2997.	0.2	72
21	Push-and-pull regulation of the fusion pore by synaptotagmin-7. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 19032-19037.	3.3	71
22	Detection of Transmitter Release from Single Living Cells Using Conducting Polymer Microelectrodes. Advanced Materials, 2011, 23, H184-8.	11.1	71
23	Exocytosis of single chromaffin granules in cell-free inside-out membrane patches. Nature Cell Biology, 2003, 5, 358-362.	4.6	68
24	A novel Ca2+-dependent step in exocytosis subsequent to vesicle fusion. FEBS Letters, 1995, 363, 217-220.	1.3	66
25	Compound Exocytosis and Cumulative Fusion in Eosinophils. Journal of Biological Chemistry, 2003, 278, 44921-44928.	1.6	66
26	An electrochemical detector array to study cell biology on the nanoscale. Nanotechnology, 2002, 13, 285-289.	1.3	62
27	Patch amperometry: high-resolution measurements of single-vesicle fusion and release. Nature Methods, 2005, 2, 699-708.	9.0	62
28	Improved Surface-Patterned Platinum Microelectrodes for the Study of Exocytotic Events. Analytical Chemistry, 2009, 81, 8734-8740.	3.2	56
29	Noradrenaline inhibits exocytosis via the G protein Î²Î³ subunit and refilling of the readily releasable granule pool via the Î±_{i1/2}subunit. Journal of Physiology, 2010, 588, 3485-3498.	1.3	54
30	Membrane capacitance techniques to monitor granule exocytosis in neutrophils. Journal of Immunological Methods, 1999, 232, 111-120.	0.6	53
31	How Could SNARE Proteins Open a Fusion Pore?. Physiology, 2014, 29, 278-285.	1.6	50
32	v-SNARE transmembrane domains function as catalysts for vesicle fusion. ELife, 2016, 5, .	2.8	50
33	Molecular mechanism of fusion pore formation driven by the neuronal SNARE complex. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 12751-12756.	3.3	49
34	Capacitance Flickers and Pseudoflickers of Small Granules, Measured in the Cell-Attached Configuration. Biophysical Journal, 1998, 75, 53-59.	0.2	48
35	Exocytotic catecholamine release is not associated with cation flux through channels in the vesicle membrane but Na+ influx through the fusion pore. Nature Cell Biology, 2007, 9, 915-922.	4.6	45
36	The fusion pore, 60Âyears after the first cartoon. FEBS Letters, 2018, 592, 3542-3562.	1.3	45

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37	A Coarse Grained Model for a Lipid Membrane with Physiological Composition and Leaflet Asymmetry. PLoS ONE, 2015, 10, e0144814.	1.1	43
38	Synaptotagmin 1 Is Necessary for the Ca2+ Dependence of Clathrin-Mediated Endocytosis. Journal of Neuroscience, 2012, 32, 3778-3785.	1.7	42
39	Coarse-Grain Simulations Reveal Movement of the Synaptobrevin C-Terminus in Response to Piconewton Forces. Biophysical Journal, 2012, 103, 959-969.	0.2	42
40	Transparent Electrode Materials for Simultaneous Amperometric Detection of Exocytosis and Fluorescence Microscopy. Journal of Biomaterials and Nanobiotechnology, 2012, 03, 243-253.	1.0	40
41	Rapid structural change in synaptosomal-associated protein 25 (SNAP25) precedes the fusion of single vesicles with the plasma membrane in live chromaffin cells. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 14249-14254.	3.3	37
42	High resolution electrophysiological techniques for the study of calcium-activated exocytosis. Biochimica Et Biophysica Acta - General Subjects, 2012, 1820, 1234-1242.	1.1	33
43	Robust, High-Resolution, Whole Cell Patch-Clamp Capacitance Measurements Using Square Wave Stimulation. Biophysical Journal, 2001, 81, 937-948.	0.2	32
44	Exocytosis of Catecholamine (CA)-containing and CA-free Granules in Chromaffin Cells. Journal of Biological Chemistry, 2001, 276, 39974-39979.	1.6	31
45	A Wireless FSCV Monitoring IC With Analog Background Subtraction and UWB Telemetry. IEEE Transactions on Biomedical Circuits and Systems, 2016, 10, 289-299.	2.7	28
46	Direct Synthesis of Quaternized Polymer Brushes and Their Application for Guiding Neuronal Growth. Biomacromolecules, 2010, 11, 2027-2032.	2.6	27
47	Positively Charged Amino Acids at the SNAP-25 C Terminus Determine Fusion Rates, Fusion Pore Properties, and Energetics of Tight SNARE Complex Zippering. Journal of Neuroscience, 2015, 35, 3230-3239.	1.7	25
48	A Bidirectional-Current CMOS Potentiostat for Fast-Scan Cyclic Voltammetry Detector Arrays. IEEE Transactions on Biomedical Circuits and Systems, 2018, 12, 894-903.	2.7	25
49	Post-CMOS Fabrication of Working Electrodes for On-Chip Recordings of Transmitter Release. IEEE Transactions on Biomedical Circuits and Systems, 2010, 4, 86-92.	2.7	24
50	Pertussis toxin does not affect the time course of exocytosis in mast cells stimulated by intracellular application of GTP-Î³-S. FEBS Letters, 1987, 222, 317-321.	1.3	23
51	Synaptic vesicle fusion: today and beyond. Nature Structural and Molecular Biology, 2019, 26, 663-668.	3.6	23
52	Voltage-Dependent Membrane Capacitance in Rat Pituitary Nerve Terminals Due to Gating Currents. Biophysical Journal, 2001, 80, 1220-1229.	0.2	21
53	Juxtamembrane tryptophans of synaptobrevin 2 control the process of membrane fusion. FEBS Letters, 2013, 587, 67-72.	1.3	20
54	Single-Cell Recording of Vesicle Release From Human Neuroblastoma Cells Using 1024-ch Monolithic CMOS Bioelectronics. IEEE Transactions on Biomedical Circuits and Systems, 2018, 12, 1345-1355.	2.7	20

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55	Differential Regulation of Exocytotic Fusion and Granule-Granule Fusion in Eosinophils by Ca2+ and GTP Analogs. Journal of Biological Chemistry, 2003, 278, 44929-44934.	1.6	19
56	GTPÎ³S-induced calcium transients and exocytosis in human neutrophils. Bioscience Reports, 1990, 10, 93-103.	1.1	17
57	Surface-modified CMOS IC electrochemical sensor array targeting single chromaffin cells for highly parallel amperometry measurements. Pflugers Archiv European Journal of Physiology, 2018, 470, 113-123.	1.3	17
58	Exocytotic Competence and Intergranular Fusion in Cord Blood-Derived Eosinophils During Differentiation. Blood, 1997, 89, 510-517.	0.6	15
59	The mystery of the fusion pore. Nature Structural and Molecular Biology, 2016, 23, 5-6.	3.6	15
60	Three Distinct Fusion Processes during Eosinophil Degranulation. Annals of the New York Academy of Sciences, 1994, 710, 232-247.	1.8	13
61	t-SNARE Transmembrane Domain Clustering Modulates Lipid Organization and Membrane Curvature. Journal of the American Chemical Society, 2017, 139, 18440-18443.	6.6	12
62	Hormonal inhibition of endocytosis: novel roles for noradrenaline and G protein G_z. Journal of Physiology, 2010, 588, 3499-3509.	1.3	11
63	12 Exocytosis and endocytosis in single peptidergic nerve terminals. Advances in Second Messenger and Phosphoprotein Research, 1994, 29, 173-187.	4.5	7
64	Non-Faradaic Electrochemical Detection of Exocytosis from Mast and Chromaffin Cells Using Floating-Gate MOS Transistors. Scientific Reports, 2016, 5, 18477.	1.6	6
65	Drug testing complementary metalâ€oxideâ€semiconductor chip reveals drug modulation of transmitter release for potential therapeutic applications. Journal of Neurochemistry, 2019, 151, 38-49.	2.1	6
66	Synaptotagmin Function Illuminated. Journal of General Physiology, 2003, 122, 251-254.	0.9	5
67	Prostaglandin E1 inhibits endocytosis in the Î²-cell endocytosis. Journal of Endocrinology, 2016, 229, 287-294.	1.2	5
68	Tethering Forces of Secretory Granules Measured with Optical Tweezers. Biophysical Journal, 2008, 95, 4972-4978.	0.2	4
69	On-Chip Cyclic Voltammetry Measurements Using a Compact 1024-Electrode CMOS IC. Analytical Chemistry, 2021, 93, 8027-8034.	3.2	3
70	Fusion pores with low conductance are cation selective. Cell Reports, 2021, 36, 109580.	2.9	3
71	AFM/TIRF force clamp measurements of neurosecretory vesicle tethers reveal characteristic unfolding steps. PLoS ONE, 2017, 12, e0173993.	1.1	2
72	Fusion Gains Independence. Journal of General Physiology, 2008, 132, 9-11.	0.9	1

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73	Sub-Frame Time Resolution in Fluorescence Imaging Reveals Delay Between SNAP25 Conformational change and Secretory Events in Chromaffin Cells. Biophysical Journal, 2012, 102, 317a-318a.	0.2	1
74	Direct Measurement of Secretory Vesicle-Plasma Membrane Tethering Interactions by Correlated AFM Force-Clamp and TIRF Microscopy. Biophysical Journal, 2014, 106, 525a-526a.	0.2	1
75	Precise Time Superresolution by Event Correlation Microscopy. Biophysical Journal, 2019, 116, 1732-1747.	0.2	1
76	Patch-clamp capacitance measurements: A tool for investigating the second messengers regulating exocytosis. The Protein Journal, 1989, 8, 438-441.	1.1	0
77	A Role For Protein Phosphorylation In Fusion Pore Opening And Transmitter Release. Biophysical Journal, 2009, 96, 101a-102a.	0.2	0
78	A Novel Approach For Wireless Communication Of In Vivo Data From Freely Moving Research Animals. Biophysical Journal, 2009, 96, 102a.	0.2	0
79	Role of the Synaptobrevin C-terminus in Fusion Pore Formation. Biophysical Journal, 2010, 98, 678a.	0.2	0
80	Electrochemical Detection of Signalling Responses in Excitatory and Non Excitatory Cells using Chemoreceptive Neuron MOS Transistors(CVMOS). Biophysical Journal, 2010, 98, 195a.	0.2	0
81	The Conformational Change of SNAP25 during the Exocytosis. Biophysical Journal, 2011, 100, 407a.	0.2	0
82	Positively Charged Amino Acids in the C-Terminal Domain of SNAP-25 Affect Fusion Pore Structure and Dynamics. Biophysical Journal, 2011, 100, 408a.	0.2	0
83	A Combined TIRF/AFM Approach to Investigate Nanomechanical Features at the Cytoplasmic Face of a Plasma Membrane. Biophysical Journal, 2012, 102, 318a.	0.2	0
84	A Coarse Grain Model for a Lipid Membrane with Physiological Composition and Leaflet Asymmetry. Biophysical Journal, 2012, 102, 172a.	0.2	0
85	Coarse Grain Simulations Reveal Movement of Synaptobrevin C Terminus in Response to Piconewton Forces Suggesting a Novel Fusion Pore Mechanism. Biophysical Journal, 2012, 102, 318a.	0.2	0
86	Time Super-Resolution Fluorescence Imaging by Event Correlation Microscopy. Biophysical Journal, 2014, 106, 24a.	0.2	0
87	Molecular Dynamics Simulations of SNARE Complex Unzipping. Biophysical Journal, 2014, 106, 30a.	0.2	0
88	Fusion Pore Selectivity in Chromaffin Cells. Biophysical Journal, 2017, 112, 396a.	0.2	0
89	Molecular Mechanism of Fusion Pore Formation. Biophysical Journal, 2017, 112, 473a.	0.2	0
90	A CMOS based Sensor Array Platform for Analysis of Exocytosis Events. Biophysical Journal, 2017, 112, 93a.	0.2	0

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91	Precision of Time Super-Resolution Imaging by Event Correlation Microscopy. Biophysical Journal, 2019, 116, 134a.	0.2	0
92	High throughput Drug Testing of Transmitter Release Events in Chromaffin Cells with Surface Modified CMOS Ic. Biophysical Journal, 2019, 116, 524a.	0.2	0
93	The Number of SNARE Complexes Changing Conformation during Vesicle Fusion. Biophysical Journal, 2019, 116, 528a.	0.2	0
94	Fusion Pore Dynamics and Snare Complex Mobility. Biophysical Journal, 2019, 116, 528a.	0.2	0
95	Structure-Based Estimate of Connexin 26 Conductance. Biophysical Journal, 2019, 116, 219a.	0.2	0
96	Relation between Release of Catecholamines and FFN511 Studied with Electrochemical Detector Arrays. Biophysical Journal, 2019, 116, 523a.	0.2	0
97	ELECTROCHEMICAL IMAGING OF EXOCYTOTIC FUSION EVENTS USING ELECTROCHEMICAL DETECTOR ARRAYS. , 2019, , 91-107.		0